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AMCV 1998.03.06 *DE 19909541-A1

AMERICAN CYANAMID CO **DB 199095 1998.03.06 (998-036491(+1998US-036491) *(1999.10.14*) COTD 239/46, A01N 43/54, CO/D 471/12, 487/12, 239/32

888

New pyrimidine derivatives useful as herbicides, especially for selective weed control

C2000-106912

Addni. Data:

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BALTRUSCHAT H S 1909/03/04 19000B-1009541

NOVELTY

2-Aryloxy- or 2-arylthio-6-aryl-pyrimidine derivatives (I) are new.

<u>DETAILED DESCRIPTION</u>

2-Aryloxy- or 2-arylphio-6-eryl-pyrimidine derivatives of formula (I) are new. C(7-D12, 14-V2) .2

A = optionally substituted anyl, optionally substituted 5- or 6membered betweenly) or diffusionlessized(axely);

B = phenyl or thisnyl;

m = 0.5:

R' = halogen, CN or optionally substituted allryi, alkenyi, alkynyi, alkoxyelkyi, haloalkyi, alkoxy, haloaikoxy, alkyithio, alkyiamino or dialkyiamino;

R^y = H. halogen, CN or optionally substituted alkyl, alkeny, haloalkyl

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or haloalkovy;

R³ = halogen, NO₃, CN, haloalkyl, haloalkoxy, haloalkylthio, SF₅, or optionally substituted alkyl, alkenyl, alkynyl, alkoxy, alkoxyalkoxy, alkylthio, alkylsulfinyl or alkylsulfinyl;

X = O or S.

ACTIVITY

Herbicidal. In a pre-emergence test, 2-(2-chloro-4-pyridyloxy)-6-nocthyl-4-(4-trifluoromethylphonyl)-pyrimidine at an application rate of 0.4 kg/ha gave 100% control of poppy (Papaver rhoeas) and 91-99% control of chickweed (Stellaria media).

MECHANISM OF ACTION

None given.

UME

(f) are herbicides useful for selective weed control, e.g. for proemergence weed control in winter wheat, maize, soya, comm or rice, or post-emergence weed control in winter wheat or maize.

ADVANTAGE

(I) have good selectivity and biodegradability. In a pre-emergence test, 2-(2-chloro-4-pyridyloxy)-6-methyl-4-(4-pilluoromethylphenyl)-pyrimidine at an application rate of 0.4 kg/ha caused no damage to winter wheat, maize, soya, cotton or rice.

SPECIFIC COMPOUNDS

9 Compounds (I) are specifically claimed, e.g. 4-methory-2-(1methyl-3-trifluoromethyl-5-pyrazolyloxy)-6-(4trifluoromethylphenyl)-pyrimidine of formula (Ia).

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EXAMPLE

A mixture of 4-methyl-2-methylsulfonyl-6-(4priffsoromethylphenyl)-pyrimidine (0.33 g), 3-miffsoromethylphenol
(0.15 g), potassium carbonass (0.25 g) and acetonitrile (25 ml) was
priffsord for 4 hours, diluxed with water and expracted with methyl
acetzte to givo 4-methyl-2-(3-triffsoromethylphenyl)-6-(4triffsoromethylphenyl)-pyrimidine (0.39 g), m.ps. 124-127°C.

TECHNOLOGY FOCUS

Organic Chemistry - Preparation: (f) is preparad by:

 reacting a compound of formula (III) with a metal compound of formula (IV) and oxidizing the product when L is hydrogen; or

(2) reacting a compound of formula (V) with a compound of formula (VD.

L = H or a leaving group; M = Li, Mg. Zn, B or Sn; Y = a leaving group; and

M' = H or metal. (15pp367DwgNo.0/0)

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